

### STIGMINA LEAF SPOT ON PALM

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A wide variety of palms are grown in Florida for their unique appearance and aesthetic value. They comprise a large part of the ornamental plant trade and are considered important as landscape specimens and indoor foliage. Palms suffer from a number of biotic and abiotic diseases, some of which may be considered economically important.

**Causal Agent:** One particularly important foliage disease of palms is caused by Stigmina palmivora (Sacc.) Hughes (2). This fungus causes severe leaf spotting and frond necrosis on susceptible Florida hosts, which include:

Acoelorrhaphe wrightii (Griseb. & H. Wendl.) H. Wendl  
Arecastrum romanzoffianum (Cham.) Becc.  
Caryota mitis Lour.  
Chrysalidocarpus lutescens H. Wendl.  
Howea forsterana (C. Moore & F. J. Muell.) Becc.  
Phoenix canariensis Hort. ex Chabaud  
Phoenix dactylifera L.  
Phoenix reclinata Jacq.  
Phoenix roebelenii O'Brien.  
Rhapis excelsa (Thunb.) A. Henry  
Roystonea elata (Bartram) F. Harper  
Roystonea regia (HBK.) O. F. Cook  
Sabal palmetto (Walt.) Lodd. ex Schult  
Thrinax sp.  
Veitchia merrilli (Becc.) H. E. Moore  
Washingtonia robusta H. Wendl.

Borassus sp. and Livistona sp. are also susceptible to this fungus but the disease has not been detected in Florida on these hosts.

**Symptoms:** Leaf spots caused by Stigmina palmivora begin as small dark circular to irregular lesions which appear watersoaked or edema-like. As the disease progresses, a tan band of necrotic tissue develops around the original leaf spot. In turn, these tan necrotic areas are usually surrounded by a thin ring of dark watersoaked necrotic tissue. The fungus sporulates profusely within these tan areas and can be seen with a hand lens as dark olivaceous-brown tufts scattered randomly within the leaf lesions (Fig. 1). According to DPI files, this disease is detected most commonly on species of Phoenix. Symptoms of this disease vary slightly from host to host but the dark watersoaked center and the necrotic peripheral ring are quite distinctive when compared to other palm leaf diseases caused by various species of Drechslera, Exserohilum, Bipolaris, or Cylindrocladium.

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**Fig. 1.** Leaf spots caused by *Stigmina palmivora* showing the characteristic pattern of a dark peripheral ring and sporulation in the tan, necrotic central portion.

**Control:** As with most fungal leaf spot diseases, reduction of overhead watering, adequate air circulation, less crowded conditions, and removal of leaf litter will help to control the spread and severity of *Stigmina* leaf spot. Fungicides registered on palm include bordeaux mix, basic copper sulfate, and iprodione (Chipco 26019) (3). Any of these formulations should provide protection from this disease especially when used in tandem with cultural controls previously mentioned. Benomyl is also registered and has a broad crop clearance on ornamentals but its efficacy against *Stigmina palmivora* is unknown.

**Survey and Detection:** Symptoms of *Stigmina palmivora* leaf spot consist of circular to irregular lesions with dark centers surrounded by a wide tan-colored necrotic band of tissue. The perimeters of these lesions are usually highlighted by a thin, dark ring. Sporulation most commonly occurs in the tan necrotic areas and the fungus can be seen with a hand lens as dark brown tufts on upper and lower surfaces of infected leaves.

### **Literature Cited**

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